

**California Regional Water Quality Control Board  
San Diego Region**

**Item 7: Discussion**

**November 26, 2003**

**To: John H. Robertus  
Executive Officer**

**From: Sherrie Komeylyan  
Water Resource Control Engineer  
Industrial Compliance Unit**

**Staff Report  
For  
Tentative ADDENDUM NO. 1 TO  
CEASE AND DESIST ORDER NO. R9-2003-0086**

**DISCUSSION:**

Discharge Description

The San Diego Convention Center is located adjacent to San Diego Bay, near Harbor Drive and K Street. The parking garage for the Convention Center is at a lower elevation than the surrounding groundwater table. A series of subsurface drains under the Convention Center floor slab and a continuous perimeter wall drain are used to collect groundwater to prevent inundation of groundwater and hydrostatic lifting of the parking garage. The subsurface drains and the perimeter wall drains convey the collected groundwater to four sumps, which then discharge the groundwater to San Diego Bay.

The City of San Diego constructed a submerged outfall to move the discharge point from two storm drain outfalls at the shore line to a location further out into the Bay. The outfall extends 240 feet from the Convention Center and discharges at a depth of approximately 35 feet. The outfall initiated operation on March 1, 2001 and extracted groundwater has been discharged through the outfall since that time.

Cease and Desist Order No. R9-2003-0086

On March 12, 2003, the Regional Board adopted Cease and Desist Order No. R9-2003-0086, Against the City of San Diego for the San Diego Convention Center Groundwater Extraction

Discharge to San Diego Bay, to establish compliance with Waste Discharge Requirements Order No. R9-2003-0050, NPDES No. CA0109029.” Cease and Desist Order No. R9-2003-0086 (CDO) was issued because of a history of violations of the effluent limitations for copper and toxicity established in Order No. R9-2003-0050.

The CDO directed the City of San Diego to cease violations of effluent limitations contained in Order No. R9-2003-0050, by December 31, 2003. The CDO also directed the City of San Diego to submit and implement a Remedial Action Work Plan that specifies the necessary steps the City will take over 27 months to achieve compliance with Order No. R9-2003-0050. The Remedial Action Work Plan was submitted by the City of San Diego on September 15, 2003 and addressed several alternative methods of treatment/disposal. The actual treatment system chosen is expected to achieve a reduction in concentrations of toxic organic and inorganic constituents that have caused violations of the effluent limitations.

Bench-scale treatment testing and onsite pilot plant testing is necessary prior to developing and implementing a treatment system. The tests need to be conducted with extracted groundwater exceeds the effluent limitations established in Order No. R9-2003-0050. The testing is necessary to select the optimal combination of filter media and to develop design specifications for the treatment system. The testing and development of the treatment system is expected to take 27 months to complete.

Since the adoption of CDO No. R9-2003-0086 on March 12, 2003, the discharge of extracted groundwater from the Convention Center has been in compliance with effluent limitations and waste discharge requirements contained in Order No. R9-2003-0050, with the exception of tributyltin (one violation occurred in September 2003).

It is reasonable to delay implementation of the bench-scale and pilot plant testing until the discharge from the Convention Center exceeds the effluent limitations for copper and/or toxicity.

#### Permitting History

An individual NPDES permit was issued in August 1985 to the San Diego Unified Port District to regulate the temporary construction dewatering discharges from the San Diego Convention Center. In November of 1989, the installation of four permanent dewatering systems was completed.

In November 1999, the City of San Diego officially transferred responsibility from the San Diego Unified Port District to the City of San Diego for the discharge of extracted groundwater to San Diego Bay from the San Diego Convention Center Groundwater Extraction and Treatment System.

On April 23, 1993, the Regional Board issued enrollment under Order No. 90-31 (general dewatering permit) for the permanent discharge of extracted groundwater from the San Diego Convention Center. In May 1995, the Regional Board adopted Order No. 95-25 (NPDES CAG919001), which superseded Order No. 90-31. Order No. 2000-90 replaced Order No. 95-25

in June of 2000. An individual NPDES permit, Order No. R9-2003-0050, NPDES No. CA0109029, was adopted in March 2003, and currently regulates the Convention Center's permanent discharge of extracted groundwater to San Diego Bay.

### Compliance History

Since 1997, the Convention Center groundwater extraction discharge has had a number of violations of the effluent limitations contained in Order No. 95-25 and Order No. 2000-90 for chronic toxicity, total suspended solids, arsenic, copper, nickel, and hexavalent chromium. Some of these historical violations were a result of the use of an inappropriate method for the analysis of saline (saltwater) samples.

Since 1997, the City of San Diego has been issued numerous staff enforcement letters for violations of the effluent limitations for toxicity, copper, total suspended solids, arsenic, nickel, and hexavalent chromium.

In 1998, the U.S. Environmental Protection Agency (USEPA) approved methodology 200.7/8 for the analysis of metals in water for the analysis of non-saline (fresh) water samples, and methodology (1638/1640), for saline water samples. In July 1998, the USEPA approved the use of Method 1638/1640 by the San Diego Unified Port District for the analysis of metals in saline samples. Method 1638/1640 provides more accurate analytical results for copper by eliminating interferences that can cause the results to exceed the actual copper concentration in the sample.

Monitoring data collected pursuant to Order Nos. 95-25 and 2000-90 indicate exceedances of the instantaneous maximum limits for copper (4.8 µg/L), the 6-month median limit for copper (3.1 µg/L), chronic toxicity daily maximum effluent limitation (1 TUc), acute toxicity instantaneous maximum effluent limitation (0.59 TUa), and total suspended solids instantaneous maximum effluent limitation (30 mg/L). Further monitoring conducted for compliance with the California Toxics Rule (CTR) and the State Implementation Policy indicated exceedances of effluent limitations for copper and nickel for samples taken in March and May 2002.

On August 13, 2003, the Regional Board adopted Order No. R9-2003-0286, *Assessment of Administrative Civil Liability With Mandatory Minimum Penalties Against The City of San Diego, San Diego Convention Center Dewatering Discharge To San Diego Bay for Violations of Order Nos. 95-25 and 2000-90*. Order No. R9-2003-0286 was issued for twenty-one violations of effluent limitations for copper and total suspended solids contained in order Nos. 95-25 and 2000-90, in the amount of \$63,000. Assessment of mandatory minimum penalties for effluent toxicity violations is currently under review by the Office of Chief Counsel of the State Water Resources Control Board. As a result, Order No. R9-2003-286 did not address the thirty-one effluent toxicity violations reported since January 2000. These violations may yet appear before the Regional Board in the form of a mandatory minimum penalty or administrative civil liability in the future.

Since March 12, 2003, the discharge of extracted groundwater from the Convention Center has been in compliance with effluent limitations and waste discharge requirements contained in Order No. R9-2003-0050, with the exception of tributyltin. It was also noted that the individual sump results have been in compliance with the effluent limitations contained in Order No. R9-2003-0050.

Prior to April 2003, the City monitored composited samples from sumps 1 and 2 and from sumps 3 and 4. Commencing in April 2003, the City combined all flows from the four sumps into a single composite effluent sample at the discharge point prior to discharge to San Diego Bay. This sampling methodology is consistent with the requirements of Order No. R9-2003-0050.